

From: <phill.kearney@power.alstom.com>
To: <jim-n@ipsc.com>, <Dave-s@ipsc.com>
Date: 6/7/01 8:54AM
Subject: Intermountain Generating Station - valve pressure drop.

James/Dave

Thanks for the valve pressure drop information. As the pressure drop is less than the 3% previously specified we need to reduce the swallowing capacity of our design as it stands at the moment to avoid the retrofit machine being too big.

From the figures you supplied, the average valve pressure drop is 2.06%, but we do not know what the flow was when you took this measurement. Also, as you know, from our analysis of your previous test data we have reservations about the accuracy of the flow measurement nozzle on unit 1.

However, from our analysis of your 1998 BMCR test data from unit 1 we have deduced that the Unit 1 flow should be 6,442,868 lb/h at 2400psig/1000F.

Therefore we believe your valve dp of 2.06% corresponds to a flow of 6,442,868 lb/h. After the retrofit, with 6,900,000 lb/h flow the pressure drop will increase proportional to the square of the flow.

ie after retrofit valve dp = $2.06\% \times (6,900,000/6,442,868)^2 = 2.36\%$

Therefore, we intend to design the retrofit HP to pass 6,900,000 lb/h at VWO 2400psig/1000F with a 2.36% pressure drop from inlet to valves to inlet to HP cylinder.

Please urgently indicate that you are in agreement (or otherwise) with the above assumption so that we may progress with the design. Thanks.

Regards,
Phill Kearney.

• TH flow 8541.6
 • Econ inlet Flow 6440.1 KPa
 • T TH - 1005.2
 • P TH 2400.5
 • Superheat Spray Flow 103.6

"James Nelson" <jim-n@ipsc.com> on 05/06/2001 21:42:28

To: lee.thornton@power.alstom.com, phil.hennesy@power.alstom.com, Phill
 KEARNEY/MEC/PGD/PGD/GECALSTHOM@GA, Richard
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 Subject: Additional Info from Intermountain Generating Station

Richard,

IP7006717